



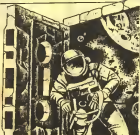
zx mushroom club

IN 1984
WORLD PARK C100
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JAN 1987

This month's:

- 24 pages
- Help Page
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- Universally Software



The Club
that
mushroomed
into an
Enterprise
for
1st February 1987

It has been said that television has destroyed our ability to go on trips of the imagination. This definitely does not be case of computers.

Take the whole of our country for its. Why, you could have the horrible episode of last month with General Abbotson, or if it is more to your taste, Revolution is also available for the Spectrum. I have it on good authority that Parliament has approved the purchase of several Spectrums and three two games, as part of what is called "unprecedented action against the revolutionaries".

Now take your average TV program. There you sit, totally excited from all the action only 4 scenes from you. Now that is total hell. You could be the Bertrikings in 4. Is there? could be something like that for dinner! yourself, and the beauty about this is that you do not have to look how David Kramer points up some kind of a wireframe between scenes.

Now take the whole of the whole family fight. To read first every Sunday. Now hell. You could be a doctor, and we all know that kind of all computer games look like a doctor's office. The other half remember Chaitin.

Now look at our beloved country. Why not play Doctor or Millionaire? He already have a dose of the latter and one of the other, but there's always space for another.

Now look at the money men breaking their necks to get hold of a ball, to get a ball, to run with a ball, to drink some Mella. You could do all this in your living room with significant games such as Football, Football Manager, Golding World, Basketball, Baseball etc. etc. I'm sorry about two things though. Costa Cranes's wheels will come off completely if there was a game called Mella, and there is no game called Mella, and even if there was one, I for one will stick to the real thing.

Now take your budget. Firstly there is a program Budget which will take care of that (obviously). Then there are Fruit Machine, Casino Royal and Don City Poker which will give you enough practice before you do something to enhance your budget.

Now take indoor games. Why let someone cheat being the best, when the computer could be a totally reliable back in Mella? (because you are the one who normally cheat). Or why not play Horrible against a totally stupid computer who does not even know that "goodbye" is a word used by millions of Mella's every day. Or why not play Trivial Pursuit with sound and graphics.

Did I hear you say now for the Ball and let's get on with the basketball? Quite a good game that, and alligned to be much better than the real thing.

Now one anyone tell me what was the point I wanted to make?

Just to say



Computing goes to the movies!

Title	Price(\$)
Spiderman	18 99
Superman	18 99
Talk	18 99
Back to the Future	35 77
Back to the Future	51 37
Highlander	31 37
A View to a Kill	43 99
Prodigy	51 51
Alien	52 99
7	32 99
Tarzan	39 44
Star Trek	25 99
Super G-men	59 25
Super Batt	18 11
Frank 'n Stein	35 33
Red Martin	18 39
Caddy Jones	18 99
Boyd Greenery	35 99
Apocalypse	17 99
Battle of the Planets	35 99
Wiggles	41 59
Breathin	39 39
Charlie and the Chocolate Factory	23 99
Fourth Protocol	54 99
Friday the 13th	32 99
Ghostbusters	17 99
Gremlins	39 25
Invasion of the Body Snatchers	19 25
Jaws	17 75
Kiss Bedazzled	35 75
Koolha	31 39
Never Ending Story	33 24
Proclamation	35 75
Rambo	35 91
Returns to Oz	51 51
Robin of Sherwood	37 99
Robin of Sherwood	41 99
Robin of the Hood	41 99
Roddy Horror Show	28 99
Shogun	33 39
Short Circuit	35 99
Sir Lancelot	33 34
Splitting Images	33 29
Toy vs. Toy	35 29
Top Gun	25 74
Unholy	27 41





If you page through Belltel, every so often you come to a card that is mailed to a C.U.D. Peter Sheldon is responsible for the cheap games and the Sinclair Base of THE NETWORK, a C.U.D. of interest to Sinclair owners.

Why a C.U.D.?

The Network is a Closed User Group (C.U.G.). The reason behind this is that there are very few advertisers willing to use the Belltel media at this early stage and the cost of running a base such as this is quite high. Most with 12 staffed pages, running boards and page rental. We do have other editors using their own mailboxes and edit passwords like myself. We support Spectrum, Commodore, BBC, Spectravideo, MSX, IBM and Apple computers. We also have a General Chatline called Chatline 3. The most popular online is certainly NIGHTHEAT with a certain gentleman?? using the moniker-plume of "Mr Callous" thereby leading to a certain sense of mysticism. We have approximately 25 sections on The Network that mean there should be something of interest to all.

Anthony Walker who is the owner of The Network using a modified Spectrum and the Gosh-doe wrote the software which is The Silicon System Bulletin Board. Comp-link has now taken over from The Silicon System with Jon Thompson as the System Operator. With his experience Anthony has written a TELESOFTWARE converter which is only compatible with the Gosh-doe which allows me to convert any program into Telesoft which I then upload to Belltel for our members to download. The card game 3-in-a-row patience from MI Computing is a 12K program which took 1 1/2 hours to convert and another 1 1/2 to then upload the 29 screen frames.

Anyone with a modem capable of 1200/75 BPS can become a member of The Network.

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lynal game bonanza

This article is a compilation of contributions from Doug Rickett, Brett Kennedy, Fisher Mail, Pierre van der Merwe and Malcolm Stewart.

Way of the tiger - Gearless combat

SHILA, use low punches and kicks to beat him. **GOBLIN**, use low punches, mid-kicks when he transforms, use mid-kicks and upper cuts as he jumps through; crouch down to stop his blows getting in. **SINO-SHAD**, Stand still and keep mid-kicking him in the chest. **CAINT TROLL**, just wait till he gets close, mid-kick him, jump backwards immediately, repeat until he does or make a flying high kick to hit him in the upper body and repeat the move to keep you out of reach of his punches. Once you have done this, turn around and repeat the double kick. Keep turning and double kicking until he dies.

Infiltrator!

are you having problems landing your **VEHICULAR ANTIDEPRESSANT** **SHAW DSD-1** Attack Helicopter? Here is the solution! On take off, set your **ADF** to **VS 3** On this quickly? Accelerate to **300** Don't overheat your battery Stay at this speed. **DON'T SLOW DOWN** keep the small helicopter on the **ADF** as straight as possible. try keeping the compass in the bottom right corner as close to **000** as possible. Keep on course all the time. Don't kill any planes - it slows you down - Instead pretend you are one of them **SWAT** **SWAT**! On the bottom of the page are the names of the goodies and badies. As the first one is -**REQUEST** If the answer will be -**GOOD REQUEST** ID - there you have his name. Look it up on the list and enter in **ADF** or **OVERLOAD**. **REMEMBER NOT TO SLOW DOWN** They will reply -**GOOD LOCK** **REQUEST** or -**CLEAR TO PROCEED**!, and you are on your way!! You might ask "What about the turbo?" Use it, but when your oil is hot, switch it off. When it is cold, switch back. After a while the **ADF** starts spinning and flashing. Slow down to a halt. Get the horizon straight (**YES YOU CAN!**). Start going down. At **100** the computer starts making the warning sound. **SLACK** your **ADF** Go down slowly, always keep the horizon straight!! When you reach **50** be careful. Your ground mission begins!

If you have completed the game, let us know how to beat the ground missions. Here is a list of names
GIANO - **ADF**, **DATA** - **ADF**, **COMAN** - **ADF**, **SCOR** - **OVERLOAD**, **MATAIN** - **ADF**, **HAPLES** - **ADF**, **GROFF** - **ADF**, **KODIN** - **OVERLOAD**, **SIFT** - **OVERLOAD**, **WEE** - **OVERLOAD**, **REASON** - **OVERLOAD**, **WHIFFLE** - **ADF**, **DOOPER** - **OVERLOAD**, **DYREKIL** - **ADF**, **BATTIS** - **OVERLOAD**

CHUCKE BERRY!

Some hints and tips to get past the four stages of Green Desert.
SHILA, **SHAW** Use flamethrower that you collect at the end of the track to shoot down the obss. Remember to stand as far left as possible.
Harland, Use knife to stab dogs. Stand up to the dogs on the left and let dogs for the dogs on the right.
Bridge Use rocketgun that you collect at the top of the log-mill to shoot down helicopters. Wait for them to land.
Prison, **CAMP** Use grenades that you collect at the Prison cells to kill the men with flamethrowers. Remember to throw the next grenade in to the opposite direction, before your previous grenade has hit the ground. The first man will come from the right.

OWN BARACK

after making a sufficient amount of money, visit the target bank. Bank all except for two thousand units. Send for number three on Northwest. Purchase obs's until a strike. Proceed to the invisible door on Clew lane. Follow the rail. Trade the strike for the d-key with bank obs's less it since it is vital! Then buy open a door on High Gate - Enter. Now, you will find a connection lock. Place objects on the letters B,F and H. Enter the name open door and you will be faced with a locked door. The key for this is held by Shaw, the key being a script. But there is a slight problem involved with getting this script - Shaw is invisible! To make her visible you must give her a spell

found at twenty four Cinder block Again! Day 14, don't steal it! Now we face another problem - where is Shar? Purchase a lyer from ten God Will take this to Sam. He lives in an invisible door on Park Ave. He will give you a shield. Put your star on it and take the shield to the place indicated on the message part of the Bureau (top left). Drop the shield here and pick it up again. It is now an x-ray. This opens an invisible door on Cross Street. Take the tale-stone. Try offering the tale-stone when nobody's around. Locate Shar and give her the spell. She will now be visible. Now purchase a license from Flaves Guild on Silver Street. Take this to the strangeroos on North Wall. Take the pearl and give it to Shar. Finally, she gives you the key to the locked door, remember... the script. When you pass this locked door you will be faced with a number of rows in order 3,2,3,2,4,4,3,2. You will now be faced with another combination lock. The clue given is 'Call me to enter'. I have traced this to number two of The Cello, this being Lady Q's. Use the spell as a key to enter. You will now be in forbidden territory, as indicated. From here on you are on your own - any hints how to get further??

```

-----+
| Spiderman |
+-----+

```

When you are in the lift shaft, examine all three tool niches. In these niches, you will find gems. To get rid of the Ringmeter, stand outside his room, close your eyes and go west. Push knob and then turn knob. Now open your eyes and the Ringmeter will be gone, leaving you his gem.

To get rid of the Lizard, get the acid and the Caliche. Handling only these two objects, enter the Lab. Type Mix and you will end up with Caliche Carbonate. Pick up the Caliche Carbonate and go to the Lizard's room and drop the Caliche Carbonate. You will then find a Sleeping Doc Cassare. Search Doc Cassare and you will find his gem. When in the Computer Room, RSE Computer. You will then need one pounds of paper to run the program. This is as far as I can get. If anyone knows how to make your web and get rid of the Hydromen, Sandman, Electro, Badame Web and all the other evil people, please write to The XX Bathroom Club.

COMPETITION TIME

We've received two entries which we thought were worth prizes, and therefore we're giving the winner, Neville Frenia a \$25.00 prize! His entry was 'There once was a club that subroomed into an enterprise for information'. The second prize (\$25) is going to Mr O'Connell who wrote 'There once was a club in bloom' it was called the XX Bathroom forever experiencing a boom! Truly this club had no bloom.

For a \$15.00, \$10.00 or \$5.00 discount on CUBES or any other program you buy from information Enterprises in June, all you have to do is to write the name of the local pop group who has female member who's surname is Constant. Write "June Competition", your name and the answer on a paper, and staple it to your order.

The DISCIPLIN with Beta Basic

To get Beta Basic to LIST correctly through the DISCIPLIN Printer port, type in the following program and run it. (You must first load in Beta Basic)

```

10 m/o pr,3
20 DATA 227,27,221
30 DPOKE=128413,28
40 DEF PROC m/o REP A,L:
  LOCAL A,B:
  CLEAR B:
  LET B=FREE+1237340+2:
  DO UNTIL FREE=0-11+2:
    LET B=B+3+FREE+12:
  LOOP
  FOR A=0 TO 3+1-1:
    READ B:
    FOR A,B:
  NEXT A
50 END PROC
60 DELETE 14 TO

```

Now RELOAD the BASIC part of Beta Basic: Change line 2 to:

```

2 FOR B=0,1:
  CLEAR B:
  LOAD 40*REP CODE:
  BAYCORNIZE B=0:
  DPOKE=128413,22222+1237340+1,22222+1:
  GOSUB TO 1,22222+1237340+1:

```

and then SAVE the changed version of Beta Basic.

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- RESET KEYS - BUILT IN SPEAKER WITH
TONE AND VOLUME CONTROL - POWER
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HE BE L. P

0-0-0-0

Could someone contact Dr. Saksyap at 452991 in connection with the capabilities of Microsoft Pascal.

0-0-0-0

Eric Slabbert will grasp "a heart on stage under mittage" information for Saksyap in the associated area. What does he mean as he says "Saksyap" has? What's heart too?

0-0-0-0

Dr. Strachan would like to know whether there is a medical processor, i.e. software which would allow one to type notes on screen, then print out the notes on paper. It need not play anything - it should be the word processor medical equivalent, preferably 80 column printer compatible with an option to choose both printer and interface. If you are a keen programmer, why not start writing this program? Doing graphics and the COPY command this is definitely not such a difficult program. The Medroom Club will promote and advertise the program, and you could get rich Q.B. & small-rich.

0-0-0-0

Q. QWILL: Is it possible to change the Q (Stop) information such as page length, upper margin etc etc? Is it possible to have the PROMPT disappear immediately after loading (i.e. without pressing P)?

Q. ARCHIVE: Is it possible to have more than 15 fields in a database? It's possible to create "files" with more than 15 fields, and subroutines, but impossible to get those fields onto the screen for input or display.

0-0-0-0

Q. KEYBOARD: There are a few proper Q. KEYBOARD available, including the Saksyap and Thor. These are quite expensive, and Information Enterprises will import them on order Saksyap, who made some with the Spectrum keyboard. Is it possible to bring out a Q. KEYBOARD soon?

0-0-0-0

The deadline for all contributions, etc. is the first Friday of the month. Address changes must be in two weeks before this. We aim to get the newsletter to you towards the 15th.

0-0-0-0

Dear Sir,
I have been experiencing a lot of trouble with Tassard 2 on my Spectrum - since I arrived in London. What happens is that all odd moments Tassard "hangs up" so that one has to reload and lose everything typed up to that stage. A "cool" unit did not appear to improve the situation. This morning after several false starts with the Sinclair transformer I decided to try using a small home-made power supply on which it is possible to vary the output voltage continuously. Starting at 5 volts I still had the trouble but taking the voltage up a fraction to just under 10 volts and racking through the "cool" unit I have not dared to try it without yet: seems to have improved the situation.

This seems very strange to me, since the home-made power supply pushes the voltage up, and the "cool" drops it? Maybe the system should be attributed to the psychological effects of this measure.

THE PARADAY LOOP.

You have left your computer running with a program on the screen. Next morning do you find that the screen looks like a well-worn Persian carpet? Or there is a smearing "O! O!" at the left hand bottom corner. Worse still, at the end of your first page of Tassard, the cursor has disappeared and you are hesitating? Try putting a Paraday loop in the co-ax from your Sinclair computer to the T.V. monitor, and see the difference. I did; and it seems to work wonders.

The instructions given below are easy to follow. So good luck.

Sam Petersen.



QL Quill

sindair

I've been using the QL (and mostly Quill) for several months now-stop, and have a lot to say for and against Quill. THE EDITOR (at R36.00 from Information Enterprises) is a

THE EDITOR



good alternative, as you will see from the following..

Editor and Quill have many points in common in their respective program objectives. They also have a considerable number of differences. The most significant difference between the two programs is the manner in which the objectives are achieved.

Quill is exclusively concerned with the creation, modification and printing of 'documents'. An assumption underlies the whole program, namely that Quill is the sole owner and user of the document, and that internal structural conventions within the file are entirely and exclusively the concern of Quill. "Outside world" files have to be transformed into Quill format, using the "import" facility. There is no easy or straightforward way of getting a Quill file back into outside world format.

In Quill, a document is one or more sections, each with one or more pages. Each page contains one or more paragraphs, which in turn consist of one or more sentences of one or more words.

The concepts which are most strongly apparent in Quill are the document, the page, the paragraph. There is a way to 'disable' the forced paging of a document (define the 'lines per page' as zero), but the paragraph concept can not be avoided.

Editor includes within its scope document type files, but also encompasses 'non-document' files, such as program source code, data files, print files etc etc. Consequently, the top level concept of Quill - the document - equates to the Editor concept of 'the file'. Editor does not make the assumption that it is the 'sole user' of a file. Quite the converse, the program recognises that it has no control over the internal file structure.

As a result of the variety of file types that may be processed, the concepts of page and paragraph do not truly exist within Editor. The program tries bravely to hang on to the idea of a line, but even that concept has to be forsaken for certain types of file. The clearest and most consistent concept in Editor is the character.

Neither Editor nor Quill has a strong view of a sentence. Both however recognise the concept of a word, though the view in each program is different. Quill stays to the idea that a word is a succession of characters between two spaces (or space and start/end of line). Editor's view is similar, except that for space is the Quill definition. Editor uses an arbitrary collection of symbols and punctuation marks - arbitrary in the sense that the program user may adjust them as necessary, according to the file type, language etc that is being processed.

Quill and Editor concepts compared

Philosophy of operation

The overriding concern of Quill in its interaction with the user is to make things as simple and as obvious as possible. In practice, this worthy objective is taken way over the top. Further assumptions in Quill are that the actual file size is pretty small, that the user is a steady and progressive worker and that the unexpected rarely happens. These assumptions are evidenced by the time penalty in attempting to navigate (move the cursor) from one part of a document to another - most particularly going back through a file - and the rather limited navigation commands available. All 'multi-phase' operations in Quill have their own built-in logic, from which one may never deviate. For example, "block copy" requires that first the start of block is defined, then using a very limited range of navigation commands, the cursor must be moved to the end of the block. After that an equally limited range of navigation commands is used to find the insertion point. After the block operation is complete, Quill forgets all about the definition of the block. Similar problems exist with the "search" and "replace" commands.

During all Quill sequences, absolute priority is placed on keeping the screen looking pretty, and maintaining a verbose dialogue with the user.

These program structures are as they are presumably to avoid sweeping the limited brain power of the user. Instead his patience is left to fatten, and the clock ticks on.

Editor takes an entirely different view of the interaction with the user. Certainly, the program has a preferred sequence of operation on receipt of any input (data or command) from the user. Within this sequence, modification of the 'in memory' representation of the file data is given top priority. Only after that does the program concern itself with the 'on screen' representation of the data. Editor is more than ready to be diverted from updating the screen, if new commands are being received from the keyboard. Generally, not nearly so much "hard holding" goes on during the command sequences. For example, the user may define an 'end of block' without first having defined the block start. If the user subsequently attempts to move, insert or delete the block, the program will simply complain that no proper block definition exists. Once a block has been defined, the program hangs on to the conceptual definition, so that the same (or adjusted) block may be manipulated without the task of defining it again.

Equally, the search and replace equivalents "find" and "exchange" will always start at the current cursor position, and search forward or back through the file as directed, but certainly do not reset to start of file as a matter of course.

Differences of this type are apparent through all of the comparable command sequences of the two programs. Editor assumes that the user knows basically what he wants to do and that he will do it in a manner which is most suitable to him at the time. If/when the user needs visual confirmation of his actions, he will stop typing and look at the screen as a whole, rather than merely the current cursor position. The momentary pause in typing will allow Editor to tidy up those parts of the screen that are in disarray (if any).

FEATURES	EDITOR	QUILL
Cursor up/down/left/right	Yes	Yes
Cursor word left/right	Yes	Yes
Cursor start/end of line	Yes	-
Cursor top/bottom of screen	Yes	-
Cursor top/bottom of file	Yes	Yes
Cursor to specified line	Yes	-
Cursor start of block	Yes	-
Cursor end of block	Yes	-
Cursor to marker	Yes	-
Cursor to last command point	Yes	-
Scroll screen up/down	Yes	-
Page screen forward/back	Yes	-
Delete character left/right	Yes	Yes
Delete word right	Yes	Yes
Delete word left	Yes	Yes
Delete to end of line	Yes	Yes
Delete to start of line	Yes	Yes
Delete line	Yes	Yes
Delete block	Yes	Yes
Set marker	Yes	-
Set right/left margin	Yes	Yes
Set tabs	Yes	Yes
Word wrap	Yes	Yes
Justify left	Yes	Yes
Justify right	Yes	Yes
Justify centre	Yes	Yes
Paragraph reform	Yes	Auto
Overstrike/insert mode	Yes	Yes
New block	Yes	-
Block definition of block	Yes	-
Sequence file on cols a to z	Yes	-
Remember file	Yes	-
Undo current line editing	Yes	-
Issue multiple commands	Yes	-
Issue repeat commands	Yes	-
Repeat last commands	Yes	-
Recall/edit last commands	Yes	-
Process command file	Yes	-
Dynamic memory management	Yes	Yes
On-line help	Yes	Yes
Multitasking	Yes	-
Fully configurable by user	Yes	-
Special font for non-display	Yes	-
INSTANT RESPONSE TO STRINGS	YES	-
SAMPLE TIMINGS	Time Ratio	Time Ratio
Load file (text) *1	59.8 1	397 98.7
(Quill) *2	21.9 1	27.2 1.2
(other) *3	20.9 1	-
Save file	37.8 1	95 1.8
Merge file	59.7 1	295.8 3.4

Ratio based on EDITOR time in seconds
 *1 series
 *2 feature not supported

*1 Text file (text) : 2800 lines 106 bytes
 *2 Text file (Quill) : 65 pages 111 bytes
 *3 Text file (other) : 1 58 bytes

SAMPLE TIMINGS	EDITOR		QUILL	
	Time	Ratio	Time	Ratio
Create 100 lines of 64 cells	10.0	1	204.0	20
Define 100 line block	2.1	1	140.5	66
Move block fed by 200 lines	5.2	1	227.0	42
Copy block at bottom to top	5.5	1	search 11	
Delete 100 lines	2.4	1	103.0	31
Page from top to bottom	37.0	1	264.0	26

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MUSIC SPECIAL

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SPECIAL PRICE \$ 69.99
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TEAPOO

In common with many word processors, Teapoo Two justifies lines by inserting extra spaces between words towards the end of the line. Teapoo is a modification to Teapoo Two which allows it to justify using virtually equal spaces between words. These consist of a number of tiny spaces, called unit spaces. Obviously, all character widths must be an exact multiple of the unit space width if lines are to be accurately justified.

In the case of dot-matrix printers, Teapoo does unit spaces by switching the printer to graphics mode (ie bit-image mode) and doing high-resolution dot spaces.

In the case of daisy-wheel printers, Teapoo does unit spaces by switching the printer to a spacing pitch equal to the number of unit spaces to be sent, sending a space, and then switching back to normal spacing pitch again.

Teapoo fits into the machine-code part of Teapoo Two and uses no extra memory. It is supplied with a BASIC program to help you convert it to suit your printer.

Teapoo is suitable for use with all popular interfaces except those which require their software to be merged with Teapoo Two, eg Microzap, Microzap I and Teapac. It cannot be used with the ZX printer or similar (eg Alphacom 315), or Teaprint.

We recommend that you read these instructions right through before starting to use Teapoo.

Teapoo is available free information
backgrounds for £15.00

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2100

*Sawood
Wood Count*

T. C. Jennings
281 Bay's Road
Arlinton
Arlinton MD 200
REGLAND

27 May 1987

Dear Mr. Corliss,

Thank you for your kind letter asking if your EE Bookroom Club may print details of my Wood Count Facility for Inwood Two. I have no objections to the publishing of full details in your newsletter.

I am not quite sure whether you have the details so I enclose the relevant pages (page 1 was an introductory letter, now irrelevant). I have not enclosed a flow chart or an assembler code listing of the machine code because these exist only in manuscript, but it should not be too difficult for your members to work out what's going on with the aid of a disassembler.

Basically, I test for spaces between words, various punctuation signs, upper and lower case, the end of each 84-character line, and the end of the 26 E test file. I decided not to test for an EOF marker so as to keep the coding more compact. Relative jumps are used so as to make it easier for the code to be transported to other computers if necessary. The word count itself is stored in system variables 23726-9 and is retrieved at the end of the count by 78 p(23726). It is possible that later versions of the Spectrum (e.g. the 128 E) may use 23726-9 for their own purposes. In that case it may be prudent to drop RMB-TOP to 31813 and store the word count in 31814-9, making the appropriate amendments to the machine code and Basic listing.

I first worked out the coding in Basic, using structures and variable names that corresponded exactly to 280 assembler language. This enabled me to debug the program easily (not that it needed much), after which the translation into machine code was straightforward. Interestingly, the Basic version takes about 16 minutes to run - about 1/1000th of the speed of the machine code version.

In a separate letter I wonder if your newsletter would be interested in the enclosed routine I have written for drawing dashed or dotted lines on the screen. I have found it particularly useful for scientific and astronomical work. It is written for the QL but is easily translated to Spectrum Basic by re-writing line 178 as:

178: PLOT IS + (I-1)*LINE, TI + (I-1)*UNIT : DRAW LEX - 62, LEX - 27

Unless you have Beta Basic 3.8 or 4.8 available, lines 196 and 198 will have to be edited and the parameter INPUT by a standard INPUT routine. I have made no attempt to trap parameters outside permitted ranges because that problem doesn't arise with the QL, but it shouldn't be too difficult to write an appropriate trap routine for the Spectrum.

Yours sincerely,

T. C. Jennings
T.C. Jennings



THE BUDGET is a program you must add to your collection of good accounting software. It consists of a budget planning facility, a expense recording and bank reconciliation facilities. You can do across checks or more to cassette/microdrive the full pages of lists of your expenses. This is a useful utility and is a must for all Bookroom Club members. Cost is \$9.94 (program on cassette & instructions), GST \$1.75, P&P \$1.00 = T O T A L \$7.69

INSTRUCTIONS

1. Switch on your Spectrum and GLIM.
2. Key in Program 1. Check the DATA lines 1801-1818 most carefully. In particular, check the placement of commas and the number and order of the items after each DATA statement. The final item in each DATA line is a checksum and is the sum of all the preceding items in that line and should trap any mis-keyed data in that line and identify the line when the program is run. Lines 1811-1818 each contain 11 items (including the checksum) and line 1819 contains 9 items (including the checksum). You may find it easier to check a separate program against a listing if you first print it using LIST.

Word Count Facility For Tassword Two

DESCRIPTION

The routine, which is menu-driven from within Tassword Basic program, scans the 256 bytes of machine code immediately before Tassword Two text storage area, which, for the purposes of the routine, is assumed to start at 1800H and end at square RASTOP is returned to 3181H.

The routine recognises the apostrophe and hyphen as letters of the alphabet, so "doesn't" will be counted as one word, as will a hyphenated word. Accordingly, the user should be wary of using the hyphen for underlining letters - or on the one as a punctuation mark - if an absolutely accurate word count is desired.

The routine will not recognise as words or parts of words any character that is not a letter of the alphabet, an apostrophe or a hyphen. Such unrecognised characters are considered by the routine as spaces. Accordingly, "1234", "a1b2c", "a" would not be counted as words if they occurred in a text file, but "let" would be counted (because of the "e").

The routine takes into account the situation which commonly occurs in right-justified text wherein the last letter of the last word on a line of Tassword text above the first letter of the first word on the next line of text, and correctly counts those words as two words. Note that this feature of the routine will give spurious results if the Tassword word-wrap facility has been turned off.

The routine is compatible with Microdrive operation, there being sufficient memory available below RASTOP to accommodate the extra RAM area when it at least 256 Microdrive.

The routine was timed as 40 seconds to do a word count on the Tassword "Inter" text file. The time taken for the count is virtually independent of the size of the file because the routine looks at all RAM at the text file, irrespective of the contents. In comparison, an equivalent routine in Spectrum Basic takes about 10 minutes to do the same job.

alternatively, instead of using Program 1 you may prefer to key in the hex code of listing 1 using a hex loader. The code starts at 3181H. Suitable hex loader routines are to be found in many books on the Spectrum, and its magazines.

3. SAVE Program 1 as "Prog1" just in case you need to amend it at a later time.
4. RUN Program 1.
5. If Program 1 has been RUN successfully then SAVE "WCI 4" CODE 3181H,184 onto a tape and VERIFY "WCI 4" CODE. Then press RUN followed by ENTER to start Program 1.
6. Key in Program 2 and check it carefully against the listing.
7. SAVE "Prog2" onto a tape and VERIFY "Prog2".
8. Hit/DELETE USE 4 to clear the computer's memory.
9. LOAD Tassword Two into your Spectrum.
10. Drop into the Tassword Basic program from the Tassword Menu. (Key: STOP & ENTER).
11. CLIM 3181H.
12. LOAD "WCI 4" CODE.
13. RECALL "Prog2".
14. RUN.
15. SAVE and VERIFY your modified version of Tassword Two using the appropriate menu option (Key: STOP & ENTER).
16. The word count facility may be used on a text file by using the menu option (Key: STOP & ENTER). The time taken for a word count, irrespective of the size of the text file, should be about 1 second.
17. Experiment with the word count facility on something trivial before you use it on anything important. This advice applies to all programs and is particularly to those written in machine code.

PROGRAM 1

```

1  REM Routine for reading DATA (with checksum featured)
   into RAM
10  CLEAR 31816: LET P=31816
20  PRINT AT 10,3:"DATA now being FORCED into RAM,"; AT 12,1:
   "Please wait."
30  LET K=10
40  FOR L=1001 TO 1010: GO SUB 100: NEXT L
50  LET L=1010: LET K=4: GO SUB 100
100  CLS: WAIT .5,10: PRINT AT 10,12:"FINISHED"; AT 12,4:
   "DATA now FORCED into RAM."
110  PRINT AT 14,2:"RAMTOP is now at 31815."
120  PRINT AT 14,2:"The machine code for the word"; AT 17,0:
   "count routine occupies 184 bytes"; AT 18,0:"starting
   at 31816."; STOP
300  RESTORE L: LET CH=0
410  FOR J=1 TO K: READ A
420  LET CH=CH+A: PEEK P,A
430  LET P=P+1: NEXT J
440  GO SUB 100
450  RETURN
460  READ A
470  IF CH=A THEN PRINT AT 10,0:"DATA in Line ";L;" is
   incorrect."; PRINT : PRINT "Please check and do again.";
   STOP
480  RETURN
1001  DATA 177,212,177,240,1,0,0,33,0,125,1043
1002  DATA 124,284,39,40,10,284,40,40,10,224,1088
1003  DATA 44,36,13,224,41,24,0,224,36,24,413
1004  DATA 0,224,123,40,1,1,22,225,124,17,843
1005  DATA 44,0,23,123,224,225,32,5,114,224,1128
1006  DATA 204,40,10,124,224,39,40,20,124,40,1077
1007  DATA 40,10,224,44,36,222,124,32,36,0,1273
1008  DATA 224,36,36,224,224,123,40,222,12,124,1416
1009  DATA 224,39,40,10,224,40,40,10,224,44,1016
1010  DATA 36,13,224,41,24,0,224,40,36,5,224
1011  DATA 224,123,40,1,0,40,36,190,32,222,974
1012  DATA 124,12,124,224,205,40,14,124,224,39,1722
1013  DATA 40,244,224,40,40,242,224,44,36,12,1251
1014  DATA 224,41,36,222,224,44,24,0,224,123,1421
1015  DATA 36,222,36,123,224,39,40,10,224,40,1094
1016  DATA 40,36,224,44,36,112,224,41,36,0,1081
1017  DATA 224,36,36,224,224,123,40,200,3,24,1242
1018  DATA 177,120,30,177,42,121,20,174,42,244,1216
1019  DATA 173,209,212,203,820

```

PROGRAM 2

```

10  FORK 1204,2: CLEAR 31815: GO SUB 4000: PRINT AT 10,3:
   FLASH 1:"Do NOT stop the tape"; AT 1,0: LOAD "W01.4"CODE :
   LOAD "forward"CODE : CLS : PRINT AT 10,0: FLASH 1:"Stop
   the tape"; GO SUB 11: LET aCODE 34784: GO TO 15
60  PRINT "word count" "": REM type 21 spaces
   after "count" in this line
170  IF a=177 THEN LET i=177
180  IF a=179 THEN GO TO 4000
190  SAVE "C01.4"CODE 31816,184: SAVE aCODE 34784,10720:
   GO SUB 400
290  VERIFY "C1.4"CODE 31816,184: VERIFY aCODE 34784,10720:
   PRINT AT 21,10: INVERSE 1:"a/codes O.K.": GO TO 15
3000  CLS : PRINT AT 10,10:"COUNTING..."
3010  RANDOMIZE SEED 31816
3020  CLS : PRINT AT 10,7:"WORD COUNT = ";IFN p(12716)
3030  PRINT AT 20,1: INVERSE 1:"press any key to continue": PAUSE
   0: CLS : GO TO 15

```

My apologies if the listings came out a bit far - I didn't want to retype it so as to avoid a mistake which could ruin your day?

Amstrad 1512

vs.

Quantum Leap

```
10  REMARK Copyright Trevor Jennings .
11  May 1987
20  REMARK Draws a dashed line of N
30  dashes each of length L spaces and
40  points (X1,Y1) and (X2,Y2)-
50  DEFINE PRCedure dash (X1,Y1,X2,
60  Y2,N,L)
110  X = X2 - X1  Y = Y2 - Y1
120  D = SQRT(X^2 + Y^2) REMARK D is the
130  distance between end points
140  S = (D - FLOOR(D)/10+1) REMARK S is
150  spacing between dashes
160  GO= S&E/D  SF=S&S/D
170  LSE=L&E/D+GO  LSF=L&S/D+SF
180  FOR I = 1 TO N
190  L&SE=X1 + (I-1)*L&SE, Y1=(I-1)*L&SY TO
200  L&SF - Y1, Y1 + L&SF - SF
210  END FOR I
220  END DEFINE
```

LISTING 1

```
TC16  a3 d3 e3 f3 g3 h3 i3 j3 k3 l3
TC36  c3 e3 f3 g3 h3 i3 j3 k3 l3 m3
TC56  e3 f3 g3 h3 i3 j3 k3 l3 m3 n3
TC76  g3 h3 i3 j3 k3 l3 m3 n3 o3
TC96  i3 j3 k3 l3 m3 n3 o3 p3 q3
TCB6  k3 l3 m3 n3 o3 p3 q3 r3 s3
TCD6  m3 n3 o3 p3 q3 r3 s3 t3 u3
TCE6  o3 p3 q3 r3 s3 t3 u3 v3 w3
TCF6  q3 r3 s3 t3 u3 v3 w3 x3 y3
TCG6  s3 t3 u3 v3 w3 x3 y3 z3
TCH6  u3 v3 w3 x3 y3 z3
TCI6  w3 x3 y3 z3
TCJ6  y3 z3
TCK6  z3
TCL6  33 43 53 63 73 83 93 A3 B3 C3
TCM6  53 63 73 83 93 A3 B3 C3 D3 E3
TCN6  73 83 93 A3 B3 C3 D3 E3 F3 G3
TCO6  93 A3 B3 C3 D3 E3 F3 G3 H3 I3
TCP6  A3 B3 C3 D3 E3 F3 G3 H3 I3 J3
TCQ6  B3 C3 D3 E3 F3 G3 H3 I3 J3 K3
TCR6  C3 D3 E3 F3 G3 H3 I3 J3 K3 L3
TCS6  D3 E3 F3 G3 H3 I3 J3 K3 L3 M3
TCT6  E3 F3 G3 H3 I3 J3 K3 L3 M3 N3
TCU6  F3 G3 H3 I3 J3 K3 L3 M3 N3 O3
TCV6  G3 H3 I3 J3 K3 L3 M3 N3 O3 P3
TCW6  H3 I3 J3 K3 L3 M3 N3 O3 P3 Q3
TCX6  I3 J3 K3 L3 M3 N3 O3 P3 Q3 R3
TCY6  J3 K3 L3 M3 N3 O3 P3 Q3 R3 S3
TCZ6  K3 L3 M3 N3 O3 P3 Q3 R3 S3 T3
```

QL or 1512? A question which has been on my mind a lot in recent times having just got my new QL (complete with drive and Sandy Interface), the arrival of the 1512 compatible, low cost Amstrad 1512 came as a surprise. I had to investigate - was mine a bad decision??

I compared the two in the table below. Some other points that need stressing are ...

- One QL disc drive = two Amstrad 1512 drives (RAM-wise; 128K vs 320K)
- Looka. There is no doubt that the Amstrad 1512 is superior. Maybe we will have a proper keyboard and casing for the QL one day.
- The QL seems to be keep-1990 to start with- but if you add the extras you need to get 14 of the level of an Amstrad 1512, ie, mouse, memory, disc interface, drive, parallel interface, monitor, joystick adaptor etc. etc. you will get near to, or past the 32000 of the single drive, monochrome 1512 w/ 32000. Admittedly when purchasing all these extras, you will build up a system more powerful than the 1512 w/ 32K upgrade, make it 128K better than the 1512, Sandy interface includes Tony Teklyn QUERT Basic extensions etc. etc. On the other hand, should you wish to add a hard disc to your QL, you will double the price of an Amstrad 1512 hard disc.
- 1512 compatibility. There is no doubt that this facet of the 1512 opens doors in terms of software. Taking into consideration the cost of some 1512 compatible software, I would argue that it also shows a lot of doors but then we all know that copies are readily available if you make the right people. QL software of the same quality are cheaper in most instances. With the Amstrad 1512, you have a choice of several word processors, the QL can use QWILL and THE EDITOR.

- * QL SuperBasic is built in BASIC. The 1912's Locomotive Basic2 has to be loaded in from disc. This also applies to the DOS, which means that the user has to reformat dramatically on the 1912 before you can start doing anything.
- * The Amstrad monitor is not a very good monitor. Should you wish to treat your eyes with a better monitor, you will have some difficulty since the power supply for the computer is contained in the monitor.
- * The Amstrad 1912 lacks anything to compare with QDOS, the QL multi-tasking system which (apparently) makes writing QL machine code an interesting.
- * QL SuperBasic seems to have a structure for every occasion that is painfully slow. Some emulations can be taught in SuperBasic compilers (such as Turbo which I've used a lot in the past month). The Amstrad Locomotive Basic2 runs under the graphics environment GEM. Its strongest relation to QL SuperBasic is its enormous range of graphics commands. The most unusual feature of Basic2 is its lack of line numbers, although labels could be used instead. It lacks procedures, you can GOTO a label but parameter passing is not supported. If Basic2 is required to write to a graphics screen, which it does via GEM, the results can take a surprisingly long time to appear. SuperBasic will please the computer science teacher more than Basic2!

I think what it boils down to is that the Amstrad has the ideas and the compatibility and the hardware will all go, whereas the QL has the brains and technology, and if you want it, the hardware at more or less the same price. So, I think I'll stick to my QL.

	Amstrad QL	Amstrad 1912
PROCESSOR		
Device	8088	8086
Number of bits	32/16	16/8
MEMORY		
Total RAM	128K	512K
Maximal RAM	64K	64K
User RAM	64K	approx. 40K
Total ROM	128 (40K)	256
KEYBOARD		
Keyboard type	Membrane	Mechanical
Total keys	85	97
Numeric pad	No	Yes
Cursor pad	No	Yes
Function keys	0	18
DISPLAY		
Integral	No	Yes
External	Connects to monitor/TV	Monitor supplied
Text	CGA/EGA	EGA/CGA
Graphics	CGA/EGA	EGA/CGA
Colors	4/2	4/16
	(mode dependent)	
SPRITES	No	Yes?
INTERFACES		
Parallel	No	Yes
Serial	2	1
Joystick	No	Yes
Mouse	No	Yes
Sound	1 channel	Yes
Expansion bus	Yes	Yes
STORAGE		
DOS	QDOS	NO-DOS, GEM, DOS Plus
Integral	2 Micro drives	1 or 2 Disc Drives
Winchester	InterFace available (CMT)	Available
SOFTWARE		
Wordprocessor	Supplied	Available
Database	Supplied	Available
Spreadsheet	Supplied	Available
Graphics (vector)	Supplied	Available
Basic	Supplied (ROM)	Supplied
Graphics (raster)	Available	Supplied
GEM	Available	Supplied
Games	Available	Available
LANGUAGES		
Interpreted		
Basic	Supplied	Supplied
Compiled Basic	Available	Available
Pascal	Available	Available
Assembler	Available	Available
Other	C, Pascal, Fortran, APL, Fortran	APL, Cobol
NATIONAL AGENCIES OF PRIME APPLICATION		
Business	Yes	Yes
Home	Yes	Yes
Education	Yes	Yes
Science	Yes (?)	(?) Yes
PHYSICAL DATA		
Size	18 TxD 4x1.75in	372x294x135mm
Weight	3.12kg	5kg
Loggable	No	No

In the table above I tried to be as comprehensive as possible to show the Amstrad 1912 and QL. I've used the latest issues of QL User, Amstrad User and Amstrad User (February 1987) and Amstrad spec sheets as sources.

University Software

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Linear Programming: A powerful and instructive optimization program capable of handling all sorts of linear programming problems (min/max, any combination of \leq , $=$, \geq constraints and $x_i \geq 0$, $x_i \leq 0$, x_i free constraints). Primal, dual, and their solutions are displayed in standard mathematical form. Unbounded problem and no feasible solution prompts. Exit option for all inputs.

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As for MICROSYSTEMS VERSION. See above.

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As for MICROSYSTEMS VERSION. See above.

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Demand / supply Analysis, Demand Theory and Cost / Benefit Analysis, Budget Line Analysis, Indifference Curves, Business Making in a Market Economy.

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Special Price \$24.00

This program computes the value of the integral of functions within given intervals. Two functions can be integrated simultaneously by Simpson's and trapezoidal rules. The program also plots two functions within given intervals and cross-hatches the area between them.

Microcommand 11 - TAPF

Normal Price \$25.00

Special Price \$25.00

Cobb-Douglas Production Function, Linear Programming, Exercises on Linear Programming, Theory of the Firm, Exercises on Cobb-Douglas, Production Function.

Economic Geography - TAPF

Normal Price \$25.00

Special Price \$25.00

von Thunen's Model of Agricultural Land Use, Exercises, Models of Urban Land Use.

Bibliofile - TAPF (compatible with Microdrive)

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Special Price \$25.00

The Bibliofile program is designed to replace the use of index cards to store bibliographical data concerning books and articles. Each record is displayed in index card format. It is possible to sort, change and copy records. Additionally, the whole file can be printed out in the form of a final bibliography.

Regression & Statistics - MICROSYSTEMS

Normal Price \$100.00

Special Price \$40.00

As described for the TAPF options.

Regression - TAPF

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Special Price \$25.00

A general regression program consists of determining the coefficients of a linear equation of the form

$$Y = a_0 + a_1X_1 + a_2X_2 + \dots + a_nX_n$$

Apart from its specific applications the program options in particular useful in dealing with following types of problems:

- (1) Exponential Regression
- (2) Demographic Regression

Plotting of data and the fitted line is also catered for.

COMPATIBLE WITH YOU KNOW WHO.
PRICED AS ONLY WE KNOW HOW.



SETTING A NEW STANDARD in Compatibility — Price — Performance — Quality — Features

AMSTRAD makes life much simpler: all the features you are likely to need are provided in an extra-compact, just select the model to suit your requirements and choose between a monochrome or colour monitor.

WHAT YOU GET WITH YOUR STANDARD AMSTRAD PC 1512

HARDWARE

- Screen Unit with 640x480 graphics
- 128K RAM memory (expandable to 512K on the desktop model)
- Full function 81 key keyboard
- Serial and parallel ports
- Ergonomically designed "Mouse" (optional) — compatible with its own dedicated "Mouse port"
- Research port built into the keyboard for use in computer games
- 15" 4:3 ratio, high resolution, anti-glare screen
- 5 battery compatible expansion slots
- 5 1/4" disc drive

- Quartz real time clock with battery back up
- Built-in speaker with volume control

SOFTWARE

- Microsoft MS-DOS™ 5.1 operating system
- Digital Research DPM Plus™
- Digital Research Office Graphics Environment Manager™
- Digital Research GEM Desktop™
- Digital Research LISA Plus™
- Lotus SmartSuite Software BASIC 1™ operating under GEM™
- Detailed clearly presented user manuals

Hardware Options

- Second floppy disc drive
- 20 Megabyte hard disc or hard card

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